California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

FACT SHEET

RENEWAL OF WASTE DISCHARGE REQUIREMENTS
(NPDES PERMIT NO. CA0024490)

FOR

MCKINLEYVILLE COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY

Humboldt County

The McKinleyville Community Services District has applied for renewal of waste discharge requirements to discharge treated wastewater under the National Pollutant Discharge Elimination System (NPDES) from the McKinleyville Wastewater Treatment Facility (WWTF).

The design capacity of the WWTF is 1.18 million gallons per day (mgd). The average dry weather flow rate was 0.90 mgd during summer 2000.

Waste treatment facilities include two aerated lagoons, three oxidation ponds, chlorine contact chamber, and chlorine and sulfur flow-proportioning equipment. There are three different disposal options for the effluent. From October 1 through May 14, when the Mad River flow is greater than 200 cubic feet per second (cfs), the effluent may be discharged to the Mad River at a dilution of 100 parts river water to 1 part effluent. If that disposal option is not available, effluent is recycled by irrigating on 201 acres of pasture in the McKinleyville and Arcata Bottoms areas. The last disposal option is to discharge the effluent to percolation ponds adjacent to the river.

Effluent limitations, toxic, and pretreatment standards are established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Clean Water Act and amendments thereto. The State Water Resources Control Board (SWRCB) adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Plan or SIP). The SIP establishes implementation provisions for priority pollutants promulgated by the EPA through the National Toxics Rule (NTR) and through the California Toxics Rule (CTR).

Insufficient background and effluent data exist to determine whether any of the priority pollutants are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard. Prior to the June 28, 2001 Board meeting, a 13267 (b) Order was issued in accordance with the SIP requiring the permittee to obtain the data. After the data are gathered, the reasonable potential analysis (RPA) will be performed and the permit reopened to include additional numerical limitations, if necessary.

The biochemical oxygen demand (BOD) effluent limit in the permit is higher than that in the previous permit. The limit is based on the treatment equivalent to secondary (40 CFR

133.105(a)). This facility is eligible for treatment equivalent to secondary treatment pursuant to 40 CFR 133.101 (g), as a facility where: 1) the BOD and TSS effluent concentrations consistently achievable exceed the minimum level for secondary treatment effluent limitations, 2) a waste stabilization pond is used as the principle process, and 3) the treatment works provide significant biological treatment of municipal wastewater. Raising the limit is justified because new information, in the form of monitoring data, is available now that was not available when the permit was originally adopted (40 CFR 122.44(l)(2)(i)(B). The total suspended solids (TSS) limit in this permit is set by 40 CFR 133.103 (c) and Federal Register Volume 43, page 55279, which apply to waste stabilization ponds. TSS limits remain unchanged from the previous permit. Additional effluent limitations, receiving water limitations, and discharge prohibitions are based upon water quality objectives and receiving water limitations contained in the Water Quality Control Plan for the North Coast Region (Basin Plan), and recycled water standards listed in Title 22.

As a result of frequent mortality of fish during acute toxicity testing, the previous Order (Provision F.23) required the Permittee to conduct a detailed Toxicity Identification Evaluation to investigate the acute toxicity of the effluent on rainbow trout (*Oncorhynchus mykiss*). The Permittee has conducted an investigation and determined that the toxicity was due to unionized ammonia in the effluent that occurred at high pH levels that increased during the laboratory testing procedure. Methods of stabilizing the pH during the test were developed, and subsequent toxicity tests consistently complied with the toxicity requirements of Order No. 96-7. Regional Water Board staff has acknowledged compliance with Provision F.23.

The NPDES permit contains a monitoring and reporting program to determine:

1. Compliance with Effluent Limitations and Receiving Water Limitations;
2. Whether or not the discharge is toxic to aquatic organisms in the receiving waters;
3. Compliance with Water Recycling Requirements; and
4. Compliance with Groundwater Limitations.

Copies of the draft permit may be obtained by contacting the California Regional Water Quality Control Board, North Coast Region, at the address above.

For any additional information or questions in this matter, please contact:

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